

WHAT IS CLAIMED IS:

1. A method of monitoring an interesterification reaction of a triacylglycerol stock comprising;
forming an interesterification mixture including a
5 triacylglycerol stock and a basic catalyst; and
determining an absorbance of the interesterification mixture at one or more selected wavelengths.
2. The method of claim 1 comprising determining the absorbance
10 at one or more selected wavelengths between about 300-500 nm.
3. The method of claim 1 wherein the basic catalyst comprises
15 alkali metal alkoxide, alkali metal, alkali metal alloy, or alkali metal hydroxide.
4. The method of claim 3 wherein the alkali metal alkoxide
20 comprises sodium methoxide, sodium ethoxide, potassium methoxide, potassium ethoxide, or a mixture thereof.
5. The method of claim 1 comprising determining the absorbance
after heating the interesterification mixture for a
sufficient time so that a measurable property of the mixture
no longer changes with further heating.
- 25 6. The method of claim 1 wherein the triacylglycerol stock comprises a bleached triacylglycerol stock.

7. The method of claim 6 wherein the bleached triacylglycerol stock comprises a refined, bleached triacylglycerol stock.

8. The method of claim 1 wherein the an interesterification mixture includes a triacylglycerol stock which has been subjected to at least one modification process from the group consisting of refining, bleaching, deodorizing, fractionation and hydrogenation.

9. A process for modifying a triacylglycerol stock comprising:
forming a mixture including the triacylglycerol stock and a basic catalyst;
reacting the mixture to form a partial interesterification product; and
determining an absorbance of the reacting mixture.

10. The process of claim 9 further comprising adding a quenching solution to the reacting mixture, thereby stopping the reaction.

11. The process of claim 9 wherein the triacylglycerol stock is a blend comprising a hardstock component and a softstock component.

12. The process of claim 11 wherein the hardstock component comprises a saturated fatty acid stock.

13. The process of claim 11 wherein the hardstock component comprises a hard triacylglycerol stock having an Iodine Value of no more than about 70.

5 14. The process of claim 11 wherein the softstock component includes a liquid oil, a lauric fat or a mixture thereof.

10 15. The process of claim 14 wherein the liquid oil comprises soybean oil, corn oil, rapeseed oil, sunflower oil, safflower oil, canola oil, cottonseed oil or a mixture thereof.

15 16. The process of claim 14 wherein the lauric fat comprises palm kernel oil, coconut oil or a mixture thereof.

17. The process of claim 9 wherein the triacylglycerol stock has a trans content of no more than about 30%.

20 18. The process of claim 9 wherein the partial interesterification product has a solid fat content at 40°C of no more than about 30%.

19. The process of claim 9 comprising partially interesterifying the mixture at a temperature of about 50°C to about 150°C.

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20. The process of claim 9 comprising partially interesterifying the mixture under substantially anhydrous conditions.

21. The process of claim 9 comprising partially interesterifying
a mixture of the triacylglycerol stock and a sufficient
amount of the basic catalyst to form a partial
interesterification product having a degree of
5 interesterification of about 5% to about 95%.

22. A method of determining the amount of a basic catalyst
required to completely interesterify a triacylglycerol stock
comprising the steps of:

10 (A) adding a first amount of the basic catalyst to a sample
of the triacylglycerol stock to form a first catalyzed
stock;

(B) allowing the first catalyzed stock to undergo an
interesterification reaction until a measurable property of
15 the triacylglycerol stock attains a constant value; and

(C) determining an absorbance of the first catalyzed stock
after the measurable property has attained the first
constant value;

(D) adding a second amount of the basic catalyst to a
20 sample of the triacylglycerol stock to form a second
catalyzed stock;

(E) allowing the second catalyzed stock to undergo an
interesterification reaction until a measurable property of
the triacylglycerol stock attains a second constant value;
25 and

(F) determining an absorbance of the second catalyzed stock
after the measurable property has attained the second
constant value.

23. A plastic spread comprising the partial interesterification product formed by the process of claim 8.

24. A water-in-oil emulsion having a fat phase which comprises the partial interesterification product formed by the process of claim 8.

25. A process for modifying a triacylglycerol stock comprising:
forming a mixture including the triacylglycerol stock and a basic catalyst, wherein the triacylglycerol stock includes a hardstock component and a softstock component;
reacting the mixture at a temperature of at least about 50°C to form a partial interesterification product; and
determining an absorbance of the reacting mixture at one or more selected wavelengths between about 300-500 nm.

26. A modified triacylglycerol stock produced by a process comprising the steps of:
forming a mixture including the triacylglycerol stock and a basic catalyst;
reacting the mixture to form a partial interesterification product; and
determining an absorbance of the reacting mixture.